
Appendix V

LEASING REFORM AND MASTER LEASING PLANS

Introduction

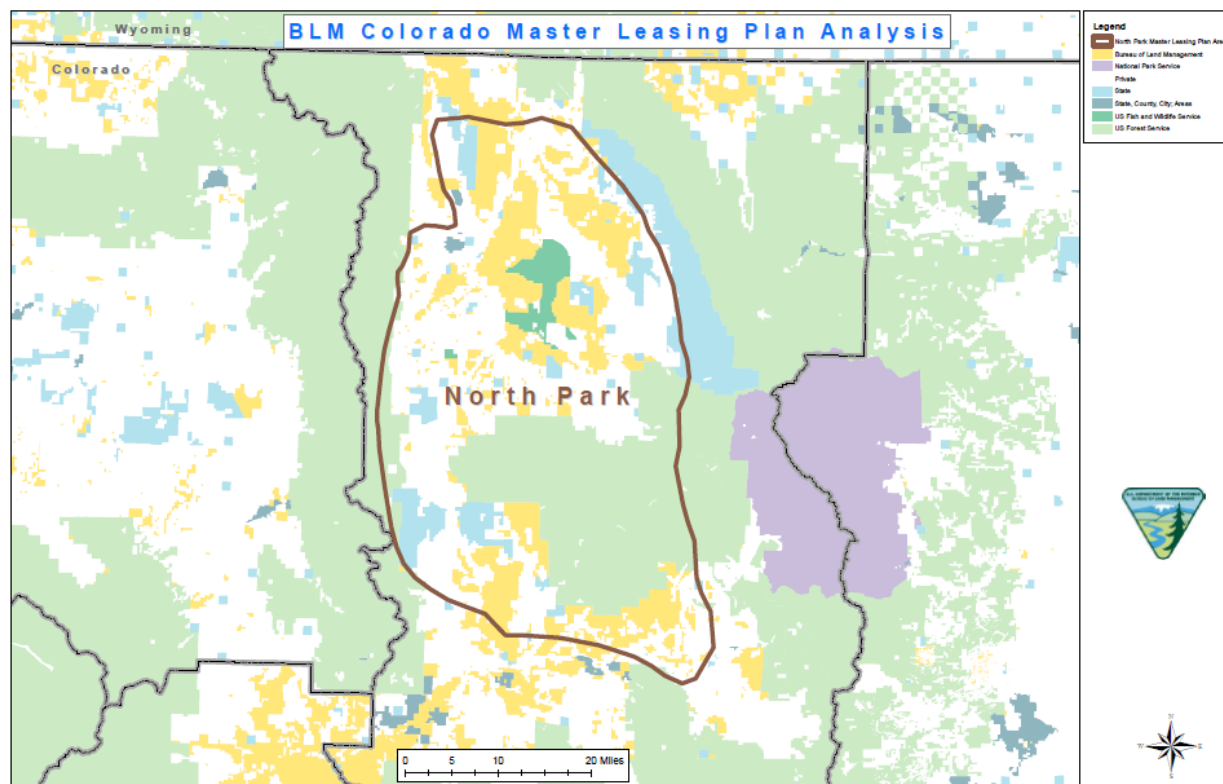
The Master Leasing Plan (MLP) concept, introduced in Washington Office Leasing Reform Instruction Memorandum (IM) No. 2010-117 (dated May 17, 2010), promotes a proactive approach to planning for oil and gas development. Generally, the Bureau of Land Management (BLM) uses Resource Management Plans (RMPs) to make oil and gas planning decisions (such as areas closed to leasing, open to leasing, or open to leasing with major or moderate constraints in the form of lease stipulations) based upon known resource values. Additional planning and analysis, however, can be necessary prior to oil and gas leasing as the result of changing circumstances, updated policies, and/or new information. The BLM issued IM No. 2010-117 so that leasing decisions can be re-evaluated in light of such changing circumstances. The IM lists numerous criteria for the BLM to use when determining whether, or not, circumstances warrant such additional planning and analysis. The BLM must prepare an MLP when all four (4) of the following criteria are met:

1. A substantial portion of the area to be analyzed in the MLP is not currently leased.
2. There is a majority Federal mineral interest.
3. The oil and gas industry has expressed a specific interest in leasing, and there is a moderate or high potential for oil and gas confirmed by the discovery of oil and gas in the general area.
4. Additional analysis or information is needed in order to address likely resource or cumulative impacts if oil and gas development were to occur where there are:
 - multiple-use or natural/cultural resource conflicts;
 - impacts to air quality;
 - impacts on the resources or values of any unit of the National Park System, a National Wildlife Refuge, or a U.S. Forest Service (USFS) Wilderness Area, as determined after consultation or coordination with the National Park Service (NPS), the U.S. Fish and Wildlife Service (USFWS), or the USFS; or
 - impacts on other specially designated areas.

In addition, the BLM may complete an MLP under other circumstances, at its discretion. When it is warranted, the BLM conducts the MLP analysis process through the overall environmental analysis process, in accordance with the National Environmental Policy Act of 1969 (NEPA) prior to issuing leases. During this process, the BLM may reconsider RMP decisions.

In November of 2010, in order to take a hard look at oil and gas leasing within the State, the BLM's Colorado State Office took the opportunity to evaluate areas in Colorado that may fit the criteria outlined in the new policy. Three (3) areas were evaluated in accordance with the new criteria, and the North Park area, within the Kremmling Field Office (KFO) Planning Area, was considered for further analysis. See Map V-1.

Map V-1



After a thorough analysis, the BLM determined that the proposed MLP did not meet all of the criteria established in the IM. A summary of the analysis follows.

- **Criterion Number 1: A substantial portion of the area to be analyzed in the MLP is not currently leased.** Approximately 206,500 acres (52 percent) of Federal mineral estate in the North Park MLP (NPMLP) area on which BLM planning decisions would apply is leased, leaving 203,900 acres (47 percent) unleased. "Substantial" is deemed to be an amount much greater than about half. In addition, the majority of the total unleased Federal acreage in the NPMLP area is on National Forest System Lands; the IM does not apply to those lands. Criterion Number 1 is not met.

- **Criterion Number 2: There is a majority Federal mineral interest.** Of approximately 1,015,800 acres in the NPMLP area, about 675,800 acres (67 percent) is Federal mineral interest. Criterion Number 2 is met.
- **Criterion Number 3: The oil and gas industry has expressed a specific interest in leasing, and there is a moderate or high potential for oil and gas confirmed by the discovery of oil and gas in the general area.** Expressions of interest have been filed in portions of the NPMLP area, but often in areas of low or no potential for oil and gas occurrence. Although leases have been issued in Grand County (the southern part of the NPMLP area), exploration and development has not occurred. Leases have been issued in Jackson County, as well, but there has been no exploration or development of those leases since 2009. Of the 185,700 acres already leased in the NPMLP area, about 70,500 acres (all in Jackson County) are in high potential (out of 214,000 acres). There are no acres leased in moderate potential areas (39,800 acres). Criterion Number 3 is not met.
- **Criterion Number 4. Additional analysis or information is needed in order to address likely resource or cumulative impacts if oil and gas development were to occur where there are:**
 - **multiple-use or natural/cultural resource conflicts** -- Resource conflicts, based upon protests for recent lease sales in the area, include Greater sage-grouse, big game, raptors, fish, sensitive plant species, and recreation. This criterion is met.
 - **impacts to air quality** -- Air emissions would be produced during all phases of oil and gas development, including exploration, well development, production, well abandonment, and road closures. Development within this proposed area is speculative, however, and the Reasonable Foreseeable Development (RFD) Scenario predicts 192 federal wells (370 wells total) over 20 years. During exploration and development, traffic on unpaved and paved roads would cause emissions of particulate matter (PM), carbon dioxide (CO₂), carbon monoxide (CO), nitrogen dioxide (NO_x), sulfur dioxide (SO₂), and Volatile Organic Compounds (VOCs). During well development and completion, well flaring and associated emissions would cause PM CO₂, CO, NO_x, SO₂, and VOC emissions [which include hydrocarbons and Hazardous Air Pollutants (HAPs)]. In addition, during well development, drilling activities and construction activities would cause particulate emissions and gaseous emissions due to heavy equipment use. Air emissions are generated during oil and gas production. Emissions of NO_x, CO₂, and CO from compression activities (burning of natural gas) would occur for gas-burning compressors. CO₂, CO, NO_x, and VOCs (hydrocarbon emissions) would be produced from any glycol operations and flashing. Any flaring would cause PM, CO₂, CO, NO_x, SO₂, and VOCs (hydrocarbon emissions and HAPs). During well abandonment and road closure, PM would result from travel on unpaved roads and demolition activities. This criterion is met.
 - **impacts to the resources or values of any unit of the National Park System, a National Wildlife Refuge, or a USFS Wilderness Area, as determined after consultation or coordination with the NPS, the USFWS, or the USFS** -- Leasing

decisions in the North Park MLP area would not affect Rocky Mountain National Park, the Arapaho National Wildlife Refuge, or nearby National Forest System lands. This criterion is not met.

- **impacts on other specially designated areas** -- Oil and gas leasing constraints are part of the alternatives proposed in the DRMP/DEIS to protect specially designated areas. This criterion is not met.

As a result of the analysis, an MLP was determined not to be warranted for the North Park area because it did not meet all of the criteria established in the IM. The BLM's Colorado State Office exercised its discretion, however, to conduct an MLP-like analysis in the DRMP/DEIS planning process. As part of the ongoing planning process, resources and potential resource conflicts with oil and gas leasing are being analyzed in the planning process for the DRMP/DEIS. The planning analysis will include, and deal with, changed circumstances, updated policies, and new information. This will be an MLP-like analysis. The Approved RMP (Approved Plan) will include a range of mitigation measures more sophisticated and wide-ranging than those in the current KFO RMP (BLM 1984a). Incorporation of the principles of an MLP analysis into the DRMP/DEIS planning process provides an effective tool to look at oil and gas leasing.

Process Used for Review

The boundary of the proposed MLP area is a geologic boundary for the North Park Basin (see Map V-1). The following themes were assembled:

1. surface ownership
2. Federal oil and gas ownership;
3. unleased Federal oil and gas ownership;
4. current oil and gas leases;
5. expressions of interest, defined by lease parcel nominations for the past 4 years;
6. designated oil and gas fields and a 1-mile boundary outside of those fields; and
7. existing active oil and gas wells

Using GIS-based analysis, values were calculated for the Colorado portion of the proposed MLP area in order to determine the:

1. percentage of the area that is currently unleased;

2. percentage of the area that is Federal oil and gas estate; and
3. potential resource conflicts.

The alternatives analyzed in the DRMP/DEIS capture the requirements of an MLP. Chapter 2 of the DRMP/DEIS discusses the proposed alternatives being analyzed. Chapter 3 of the DRMP/DEIS provides an analysis of those resources and resource uses managed by the KFO (the affected environment), including resources and resource uses, and the current conditions and characterization of each resource and its use. (The characterization of the resources and resource uses includes indicators that assess the resource condition, trends that express the direction of change between the present and some point in the past, and forecasts that predict changes in the condition of resources given current management.) Chapter 4 of the DRMP/DEIS evaluates how each of the proposed alternatives will impact the environment (environmental consequences).

Rather than focusing solely on leasing, as an MLP analysis would, the DRMP/DEIS provides holistic management by making land-use allocations for all resources, allowing complementary uses, and analyzing mitigation measures. Each alternative resolves resource concerns with a different emphasis. (For example, resolution under Alternative C is accomplished by emphasizing resource protection; resolution under Alternative D is accomplished by emphasizing resource use and production.)

Table V-1 shows the amount of acreage available to oil and gas leasing in the KFO under each alternative, along with the amount of acreage with leasing restrictions. This includes the amount of acreage: 1) open to leasing with controlled surface use (CSU) stipulations; 2) open to leasing with timing limitation (TL) stipulations; 3) open to leasing with no surface occupancy (NSO) stipulations; and 4) closed to leasing.

Table V-2 shows the specially designated areas by proposed alternative.

Table V-3 shows a comparison of the proposed alternatives.

Chapter 4 of the DRMP/DEIS discusses the impact of these alternatives on multiple-use or natural/cultural resource conflicts in relation to BLM-managed public lands within the Planning Area. Generally, where there is a greater amount of acreage available for oil and gas development, there is a greater amount of surface disturbance. Where there is a greater amount of surface disturbance, there is a greater amount of impacts to soils, wildlife, recreation, livestock grazing, air quality, water, visual resources, recreation, and sensitive areas.

Table V-1 Stipulations for Surface-Disturbing Activities Alternative/Acres (Federal mineral estate)				
Stipulations	Alternative A	Alternative B	Alternative C	Alternative D
No Surface Occupancy (NSO) or surface-disturbing activities	24,700	232,200	224,000	209,000
Controlled Surface Use (CSU)	250,300	512,000	519,300	508,700
Timing Limitations (TLs)	562,900	520,200	520,200	520,200
Fluid Minerals Alternative/Acres (Federal mineral estate)				
CLOSED to fluid minerals leasing	10,600	28,300	271,100	28,200
High-potential areas	0	0	76,800	0
Moderate-potential areas	200	200	6,700	200
OPEN to fluid minerals leasing	642,900	625,200	382,400	625,300
High-potential areas	114,000	114,000	37,200	114,000
High Potential Areas With major constraints (NSO)	5,700	33,100	29,600	28,900
High Potential	24,700	110,500	110,600	110,100

Table V-1 Stipulations for Surface-Disturbing Activities Alternative/Acres (Federal mineral estate)				
Stipulations	Alternative A	Alternative B	Alternative C	Alternative D
Areas With minor constraints (CSU)				
High Potential Areas With minor constraints (TL)	104,300	112,500	112,500	112,500
Moderate-potential areas	47,900	47,900	41,000	47,900
Moderate Potential Areas With major constraints (NSO)	800	11,900	13,600	12,300
Moderate Potential Areas With minor constraints (CSU)	24,000	41,900	42,200	42,200
Moderate Potential Areas With minor constraints (TL)	45,700	46,000	46,000	46,000

Table V-2 Specially Designated Areas Alternative/Acres (Federal mineral estate)				
Areas	Alt A	Alt B	Alt C	Alt D
Special Recreation Management Area (SRMA) Designation	13,650	15,550	23,450	84,850
Areas of Environmental Concern (ACECs)	516	8,570	9,250	516
Wilderness Study Areas (WSAs)	8,872	8,872	8,872	8,872
Wild and Scenic Rivers (WSRs) Suitable for Inclusion in the National Wild and Scenic Rivers System (NWSRS)	0	20.62 [NOTE: There are 2 alternatives under Alternative B. Under Alternative B1, the BLM would find 2 segments (20.62 miles) suitable for congressional designation in the NWSRS (2 segments of the Colorado River between the mouth of Gore Canyon and Radium). Under Alternative B2, the BLM would defer a determination of suitability and recommend adopting and implementing the Stakeholder Management Plan in order to protect the free-flowing nature, outstanding remarkable values (ORVs), and tentative classifications on the Colorado River segments.]	87.38	0

Table V-3 Summary of Environmental Consequences Under Alternative A, Alternative B, Alternative C, and Alternative D			
Alternative A (No Action Alternative)	Alternative B (Preferred Alternative)	Alternative C	Alternative D
Air Quality			
Regardless of the alternative selected, the BLM adheres to local, State, and Federal regulations designed to protect air quality. This alternative has few specific restrictions or management actions that address air quality. Under this alternative, the number of acres available for oil and gas development, other mineral development, livestock grazing, other surface-disturbing activities, and open cross-country travel is the highest, which would result in the greatest impacts to air quality	This alternative would restrict travel management and oil and gas leasing. In addition, it would require oil and gas operations to begin to reduce emissions and move toward "green completions," which will reduce impacts to air quality.	Under this alternative, there would be a high percentage of acreage covered by no leasing or NSO stipulations, and an emphasis on non-motorized travel.	Alternative D would be similar to alternative B, but with somewhat greater indirect impacts to air quality, due to the fact that fewer acres would be withdrawn from surface occupancy, and that there would be fewer restrictions on use.
Recreation			
Under this alternative, recreation would be managed for the continued availability of outdoor recreational opportunities, visitor	Under this alternative recreation would be managed for a variety of recreational activities and the protection of natural	Under this alternative, current recreational uses would be recognized, but not necessarily	Alternative D would emphasize managing BLM-managed public lands in a manner that would be favorable in

Table V-3 Summary of Environmental Consequences Under Alternative A, Alternative B, Alternative C, and Alternative D			
Alternative A (No Action Alternative)	Alternative B (Preferred Alternative)	Alternative C	Alternative D
<p>resource interpretation, and visitor safety. Two (2) SRMAs would be managed (approximately 13,600 acres).</p>	<p>resource recreation settings. Under this alternative, the BLM would designate 2 areas as ERMAs in order to specifically address local recreation issues (approximately 48,200 acres). Public lands not included in an SMRA or an ERMA would not be managed for specific recreation opportunities. Under this alternative, the BLM would designate 2 SRMAs for the protection of the recreation outcomes and setting prescriptions (approximately 15,550 acres).</p>	<p>accommodated when considering allowable uses. Alternative C would designate 3 SRMAs (totaling approximately 23,450 acres). One (1) ERMA (totaling approximately 800 acres) would be designated. Recreational opportunities would be offered that are in concert with sustaining the ecological integrity of habitats for priority plant, wildlife, and fish species. This would include a mix of recreation; however, in more ecologically sensitive areas, recreation use may be more limited. Public lands not in SRMAs or in ERMAs would not be managed for specific recreational opportunities.</p>	<p>producing opportunities for recreation in combination with other land uses. Alternative D would manage recreation settings for higher numbers of users. Alternative D would have 6 SRMAs (totaling approximately 84,850 acres). Public lands not in SRMAs would not be managed for specific recreational opportunities.</p>
Fish and Wildlife			
Under this alternative,	Under this	Under this	Under this alternative,

Table V-3 Summary of Environmental Consequences Under Alternative A, Alternative B, Alternative C, and Alternative D			
Alternative A (No Action Alternative)	Alternative B (Preferred Alternative)	Alternative C	Alternative D
<p>the KFO would continue to maintain and, where needed, improve the condition and trends of all aquatic habitats within perennial streams or lakes at levels conducive to a healthy aquatic community. The KFO would manage habitat in a manner designed to support optimum terrestrial wildlife population levels, as determined cooperatively with the CDOW and the USFWS, commensurate with Public Land Health Standards (BLM 1997a). The KFO would manage Special Status Species and their habitats in order to provide for their continued presence, in accordance with applicable laws, rules, regulations, policies, standards, and guidelines. The KFO would maintain current stipulations (such as</p>	<p>alternative, public lands would be managed with an emphasis on protecting crucial habitat, stream flows, and riparian areas. Management would protect and improve priority habitat, winter range (quantity and quality), and core wildlife areas. Development would be moderately limited in, and seasonal restrictions would be applied to, winter range.</p>	<p>alternative, public lands would be managed with an emphasis on proactively identifying, protecting, and improving habitats (such as sensitive and crucial wildlife habitat.) Management would protect and improve priority habitat, winter range (quantity and quality), and core wildlife areas. Parts of core wildlife areas would be closed or major constraints (NSOs) would be applied to oil and gas leasing. Protection of tributary watersheds, fish-bearing streams, stream flows, riparian areas, and habitat connections and migration corridors would be maximized. Development would be limited in, and seasonal restrictions would be applied to, winter range.</p>	<p>the KFO would continue to manage fish and wildlife (including Special Status Species) with an emphasis on protecting crucial habitat, including protecting stream flows and riparian areas.</p>

Table V-3 Summary of Environmental Consequences Under Alternative A, Alternative B, Alternative C, and Alternative D			
Alternative A (No Action Alternative)	Alternative B (Preferred Alternative)	Alternative C	Alternative D
seasonal TLs) in order to protect Sensitive Species habitat.			
Greater Sage-grouse			
Under this alternative, the KFO would continue implementing measures designed to protect occupied and suitable habitat for sagebrush-dependent species. The KFO would implement habitat treatments designed to enhance sagebrush habitat for sagebrush-dependent species.	Under this alternative, the KFO would continue implementing measures designed to protect occupied and suitable habitat for sagebrush-dependent species. The KFO would implement habitat treatments designed to enhance sagebrush habitat for sagebrush-dependent species.	Under this alternative, the KFO would continue implementing measures designed to protect occupied and suitable habitat for sagebrush-dependent species. The KFO would implement habitat treatments designed to enhance sagebrush habitat for sagebrush-dependent species.	Under this alternative, the KFO would continue implementing measures designed to protect occupied and suitable habitat for sagebrush-dependent species. The KFO would implement habitat treatments designed to enhance sagebrush habitat for sagebrush-dependent species.